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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,169	06/14/2005	Frank Brady	PZ02108	9282
36335 7590 11/20/2009 GE HEALTHCARE, INC. IP DEPARTMENT 101 CARNEGIE CENTER PRINCETON, NJ 08540-6231			EXAMINER PERREIRA, MELISSA JEAN	
			ART UNIT	PAPER NUMBER
			1618	
			MAIL DATE	DELIVERY MODE
			11/20/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/539,169

**Applicant(s)**

BRADY ET AL.

**Examiner**

MELISSA PERREIRA

**Art Unit**

1618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4 and 5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

Claims 4 and 5 are pending in the application. Claims 1-3 and 6-14 were cancelled in the amendment filed 7/14/09. Any objections and/or rejections from previous office actions that have not been reiterated in this office action are obviated.

### ***New Grounds of Rejection***

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Luthra et al. (US 2004/0236085) in view of Stevens et al. (WO01/14354) and Scheler (US 4,540,648).

3. Luthra et al. (US 2004/0236085) discloses a solid-phase process for the production of radiolabelled tracers which are suitable for use as Positron Emission Tomography (PET) radiotracers (abstract; p6, [0099]). The process for the production of radiolabelled tracers comprise a.) treatment of a resin-bound precursor, SOLID SUPPORT-LINKER-I<sup>+</sup>-TRACER Y<sup>-</sup>, with <sup>18</sup>F<sup>-</sup> to produce the labeled tracer, <sup>18</sup>F-TRACER; b.) removal of excess <sup>18</sup>F<sup>-</sup> by ion-exchange chromatography; c.) removal of any protecting groups; d.) removal of organic solvent; e.) formulation of the resultant <sup>18</sup>F-TRACER as an aqueous solution (p1, [0004-0006], [0008-0015]; p6, [0081]). The

SUPPORT-LINKER (i.e. polystyrene) of the disclosure encompasses the SUPPORT-LINKER of the instant claims and Y<sup>-</sup> (i.e. triflate) encompasses the Y<sup>-</sup> of the instant claims. Luthra et al. does not disclose a benzothiazole TRACER.

4. Stevens et al. (WO01/14354) discloses <sup>18</sup>F-substituted benzothiazoles for use in PET (p5, lines 3-17).

5. Scheler (US 4,540,648) discloses a benzothiazole/light sensitive compound linked to a solid support/film (i.e. polystyrene) via a coupler component (abstract; column 3, lines 25+; column 7, lines 5-11 and 60-66; claim 1). The polystyrene solid support encompasses the solid support of the disclosure as evidenced in the specification p6, lines 1-8.

6. At the time of the invention it would have been obvious to one ordinarily skilled in the art to substitute the benzothiazole/light sensitive compound of Stevens et al. and Scheler for the TRACER of Luthra et al. to generate a <sup>18</sup>F radiolabelled benzothiazole (derivative) via the polymer-bound/solid support of Luthra et al. as Stevens et al. teaches of <sup>18</sup>F-substituted benzothiazoles. Luthra et al. and Stevens both teach of <sup>18</sup>F radiolabelled radiopharmaceutical agents for use in PET. It would have been predictable and advantageous to use the polymer-bound/solid support of Luthra et al. to radiolabel benzothiazoles with <sup>18</sup>F to avoid time consuming purification steps and allow for ease of production and greater throughput (Luthra et al.; p1, [0003]). Also, it would have been obvious to one ordinarily skilled in the art to attach a benzothiazole (derivative) to the polystyrene solid support (Luthra et al.) as Scheler also teaches that benzothiazole may be linked to a polystyrene solid support via a coupler.

***Conclusion***

No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA PERREIRA whose telephone number is (571)272-1354. The examiner can normally be reached on 9am-5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit 1618

/Melissa Perreira/  
Examiner, Art Unit 1618